Manitoba Agriculture

FARM PLANNING GUIDE
1992 CROP ESTIMATES

Information Update

DATE: January, 1992

The projected crop costs enclosed in these two budgets have been prepared to assist you in developing your own production costs. The budgets assume continuous cropping.

The cash cost inputs associated with growing a crop in Manitoba are substantial. It is extremely important for a farm manager to do detailed calculations if he is to select the optimum crop combination that will maximize profits. Detailed planning is also necessary when estimating the amount of operating credit required to finance the inputs. The importance of good financial management can be emphasized by noting that a 400 hectare (1000 acre) farm requires somewhere in the vicinity of $90,000 for cash inputs alone.

The following budgets are estimates of the cost of producing several different crops in 1992. General departmental recommendations are assumed in using fertilizers and chemical inputs. The figures provide an economic evaluation of the crops and estimate the yields required to cover all costs including labour, and investment. Management has not been accounted for in these enterprise budgets.

To estimate a cash flow budget the actual payments on principal and interest may be substituted for the fixed costs. As well, an estimate has to be made to cover family living expenses, funds required for capital purchases and cost adjustments made for livestock enterprises on the farm.

These budgets may be adjusted by putting in your own figures. As a producer you are encouraged to calculate your own costs of production for various crops. On each farm, costs and yields differ due to soil type, climatic conditions, and agronomic practices.

The **premiums** for the Gross Revenue Income Program (G.R.I.P.) have **not** been included in these budgets. The breakeven calculations do not take into consideration the income support levels of various crops, they are based **solely** on projected market prices.

MG-15398

***CROP PRODUCTION COSTS 1992**

Operating Costs	Wheat	**Barley	Canola	Flax	Rye
1) Seed & Treatment	$ 14.28	$ 12.96	$ 35.97	$ 13.95	$ 11.06
2) Fertilizer	48.22	48.22	54.45	26.80	41.32
3) Chemicals	42.01	37.07	30.89	42.01	6.18
4) Fuel	24.71	24.71	24.71	24.71	24.71
5) Machinery Operating Costs	23.47	23.47	23.47	23.47	23.47
6) Crop Insurance	16.43	14.95	34.22	21.00	19.15
7) Other Costs	18.53	18.53	18.53	18.53	18.53
8) Land Taxes	12.36	12.36	12.36	12.36	12.36
9) Drying Costs	---	---	---	---	---
10) Interest on Operating	10.00	9.61	11.73	9.14	7.84
Total Operating Costs	**$210.01**	**$201.88**	**$246.33**	**$191.97**	**$164.62**
Fixed Costs					
11) Land Investment Costs	$ 64.25	$ 64.25	$ 64.25	$ 64.25	$ 64.25
12) Machinery Depreciation	29.65	29.65	29.65	29.65	29.65
13) Machinery Investment Cost	23.72	23.72	23.72	23.72	23.72
14) Storage Cost	6.99	6.99	6.99	6.99	6.99
Total Fixed Costs	**$124.61**	**$124.61**	**$124.61**	**$124.61**	**$124.61**
Total Operating & Fixed Costs	**$334.65**	**$326.49**	**$370.94**	**$316.58**	**$289.23**
15) Labour	$ 29.65	$ 29.65	$ 29.65	$ 29.65	$ 29.65
Total Costs (Including Labour)	**$364.27**	**$356.14**	**$400.59**	**$346.23**	**$318.88**

			Breakeven Analysis		
Price/Unit	$110/t	$83/t	$243/t	$157/t	$74/t
Breakeven Yield:					
Operating Costs	1.909 t	2.432 t	1.014 t	1.223 t	2.225 t
Operating & Fixed Costs	3.042 t	3.934 t	1.527 t	2.016 t	3.909 t
Total Costs	3.312 t	4.291 t	1.649 t	2.205 t	4.309 t

* These projected costs do not include GRIP premiums; nor calculate breakeven yields using gross revenue income target prices from GRIP.

GUIDELINES (DOLLARS PER HECTARE)					
Corn	Sunflowers	Peas	Lentils	Buckwheat	Your Farm
$ 42.65	$ 34.72	$ 65.52	$ 58.96	$ 18.36	_____
77.29	55.41	34.43	34.43	50.90	_____
54.36	30.89	35.83	45.72	30.89	_____
27.18	25.95	25.95	24.71	24.71	_____
28.42	25.95	24.71	24.71	23.47	_____
26.56	16.06	22.24	35.71	40.03	_____
19.77	19.77	19.77	18.53	18.53	_____
16.06	12.36	16.06	12.36	12.36	_____
40.77	15.44	---	---	---	_____
16.65	11.83	12.23	12.76	10.96	_____
$349.71	**$248.38**	**$256.74**	**$267.89**	**$230.21**	_____
$103.59	$ 64.25	$103.59	$ 64.25	$ 64.25	_____
37.07	32.12	30.89	30.89	29.65	_____
29.65	25.70	24.71	24.71	23.72	_____
13.99	6.99	6.99	6.99	6.99	_____
$184.30	**$129.06**	**$166.18**	**$126.84**	**$124.61**	_____
$534.01	**$377.44**	**$422.92**	**$394.73**	**$354.82**	_____
$ 29.65	$ 29.65	$ 29.65	$ 29.65	$ 29.65	_____
$563.66	**$407.09**	**$452.57**	**$424.38**	**$384.47**	_____
Per Hectare Yields					
$110/t	$243/t	$156/t	$287/t	$207/t	_____
3.179 t	1.022 t	1.646 t	933 kg	1.112 t	_____
4.855 t	1.553 t	2.711 t	1.375 t	1.714 t	_____
5.124 t	1.675 t	2.901 t	1.479 t	1.857 t	_____

** To calculate the cost for growing oats, use the "barley" column and reduce the chemical cost by approximately $9.92. All other costs remain similar to barley.

***CROP PRODUCTION COSTS 1992**

Operating Costs	Wheat	**Barley	Canola	Flax	Rye
1) Seed & Treatment	$ 5.63	$ 5.25	$ 15.20	$ 5.60	$ 4.38
2) Fertilizer	19.53	19.53	21.90	10.80	16.80
3) Chemicals	17.00	15.00	12.50	17.00	2.50
4) Fuel	10.00	10.00	10.00	10.00	10.00
5) Machinery Operating Costs	9.50	9.50	9.50	9.50	9.50
6) Crop Insurance	6.65	6.05	13.85	8.50	7.75
7) Other Costs	7.50	7.50	7.50	7.50	7.50
8) Land Taxes	5.00	5.00	5.00	5.00	5.00
9) Drying Costs	---	---	---	---	---
10) Interest on Operating	4.04	3.89	4.77	3.70	3.17
Total Operating Costs	**$ 84.85**	**$ 81.72**	**$100.22**	**$ 77.60**	**$66.60**
Fixed Costs					
11) Land Investment Costs	$ 26.00	$ 26.00	$ 26.00	$ 26.00	$ 26.00
12) Machinery Depreciation	12.00	12.00	12.00	12.00	12.00
13) Machinery Investment Cost	9.60	9.60	9.60	9.60	9.60
14) Storage Cost	2.83	2.83	2.83	2.83	2.83
Total Fixed Costs	**$ 50.43**	**$ 50.43**	**$ 50.43**	**$ 50.43**	**$ 50.43**
Total Operating & Fixed Costs	**$135.28**	**$132.15**	**$150.65**	**$128.03**	**$117.03**
15) Labour	$ 12.00	$ 12.00	$ 12.00	$ 12.00	$ 12.00
Total Costs (Including Labour)	**$147.28**	**$144.15**	**$162.65**	**$140.03**	**$129.03**

			Breakeven Analysis		
Price/Unit	$3.00/bu	$1.80/bu	$5.50/bu	$4.00/bu	$1.88/bu
(or per tonne equivalent)	$110/t	$83/t	$243/t	$157/t	$74/t
Breakeven Yield:					
Operating Costs	28.3 bu	45.4 bu	18.2 bu	19.4 bu	35.4 bu
Operating & Fixed Costs	45.1 bu	73.4 bu	27.4 bu	32.0 bu	62.2 bu
Total Costs	49.1 bu	80.1 bu	29.6 bu	35.0 bu	68.6 bu

* These projected costs do not include GRIP premiums; nor calculate breakeven yields using gross revenue income target prices from GRIP.

GUIDELINES (DOLLARS PER ACRE)					
Corn	Sunflowers	Peas	Lentils	Buckwheat	Your Farm
$ 23.00	$ 13.50	$ 26.25	$ 24.00	$ 7.50	_____
31.20	22.55	13.95	13.95	20.55	_____
22.00	12.50	14.50	18.50	12.50	_____
11.00	10.50	10.50	10.00	10.00	_____
11.50	10.50	10.00	10.00	9.50	_____
10.75	6.50	9.00	14.45	16.20	_____
8.00	8.00	8.00	7.50	7.50	_____
6.50	5.00	6.50	5.00	5.00	_____
16.50	6.25	---	---	---	_____
7.02	4.77	4.94	5.17	4.44	_____
$147.47	**$100.07**	**$103.64**	**$108.57**	**$ 93.19**	_____
$ 41.92	$ 26.00	$ 41.92	$ 26.00	$ 26.00	_____
15.00	13.00	12.50	12.50	12.00	_____
12.00	10.40	10.00	10.00	9.60	_____
5.66	2.83	2.83	2.83	2.83	_____
$ 74.58	**$ 52.23**	**$ 67.25**	**$ 51.33**	**$ 50.43**	_____
$222.05	**$152.30**	**$170.89**	**$159.90**	**$143.62**	_____
$ 12.00	$ 12.00	$ 12.00	$ 12.00	$ 12.00	_____
$234.05	**$164.30**	**$182.89**	**$171.90**	**$155.62**	_____

Per Hectare Yields					
$2.80 bu	$0.110 lb	$4.25 bu	$0.13 lb	$4.50 bu	_____
$110/t	$243/t	$156/t	$287/t	$207/t	
					_____
52.7 bu	910 lbs	24.2 bu	835 lbs	20.7 bu	
79.3 bu	1385 lbs	40.2 bu	1230 lbs	31.9 bu	_____
83.6 bu	1494 lbs	43.0 bu	1322 lbs	34.6 bu	

** To calculate the cost for growing oats, use the "barley" column and reduce the chemical cost by approximately $4.50. All other costs remain similar to barley.

CROP BUDGET ASSUMPTIONS

1) Seed & Treatment

Per Hectare

Crop	Rate/ha	Price/Unit	Cost/ha
Wheat	84 kg	$0.17 /kg	$14.28
Barley	81 kg	$0.16 /kg	$12.96
Canola *	7 kg	$2.43 /kg	$17.01
Flaxseed	45 kg	$0.31 /kg	$13.95
Rye	79 kg	$0.14 /kg	$11.06
Corn	56,865 plants	$80/80,000	$42.65
Sunflowers	7 kg	$4.96 /kg	$34.72
Peas	168 kg	$0.39 /kg	$65.52
Lentils	67 kg	$0.88 /kg	$58.96
Buckwheat	54 kg	$1.10 /kg	$18.36

* Canola Seed treatment cost is an additional cost: $18.96/hectare.

Per Acre

Crop	Rate/acre	Price/Unit	Cost/acre
Wheat	1.25 bu.	$ 4.50 /bu.	$ 5.63
Barley	1.5 bu.	$ 3.50 /bu.	$ 5.25
Canola *	6 lbs.	$ 1.10 /lb.	$ 6.60
Flaxseed	40 lbs.	$ 0.14 /lb.	$ 5.60
Rye	1.25 bu.	$ 3.50 /bu.	$ 4.38
Corn	23,000 plants	$80/80,000	$23.00
Sunflowers	6 lbs.	$ 2.25 /lb.	$13.50
Peas	2.5 bu.	$10.50 /bu.	$26.25
Lentils	60 lbs.	$ 0.40 /lb.	$24.00
Buckwheat	1 bu.	$ 7.50 /bu.	$ 7.50

* Canola Seed treatment cost is an additional cost: $ 8.60/acre.

2) Fertilizer

Fertilizer	Nitrogen		Phosphorous		Potash		Sulfur		Cost/ha
Price/kg	40¢	$	46¢	$	24¢	$	49¢	$	$
					Per Hectare				
Crop	kg	Cost	kg	Cost	kg	Cost	kg	Cost	Cost
Wheat	78	31.20	37	17.02	--	---	--	---	48.22
Barley	78	31.20	37	17.02	--	---	--	---	48.22
Canola	90	36.00	22	10.12	--	---	17	8.33	54.45
Flaxseed	67	26.80	--	---	--	---	--	---	26.80
Rye	78	31.20	22	10.12	--	---	--	---	41.32
Corn	101	40.40	45	20.70	45	10.80	11	5.39	77.29
Sunflowers	67	26.80	39	17.94	22	5.28	11	5.39	55.41
Peas	--	---	39	17.94	34	8.16	17	8.33	34.43
Lentils	--	---	39	17.94	34	8.16	17	8.33	34.43
Buckwheat	62	24.80	39	17.94	34	8.16	--	---	50.90

Fertilizer	Nitrogen		Phosphorous		Potash		Sulfur		Cost/acre
Price/lb	18¢	$	21¢	$	11¢	$	22¢	$	$
					Per Acre				
Crop	lb	Cost	lb	Cost	lb	Cost	lb	Cost	Cost
Wheat	70	12.60	33	6.93	--	---	--	---	19.53
Barley	70	12.60	33	6.93	--	---	--	---	19.53
Canola	80	14.40	20	4.20	--	---	15	3.30	21.90
Flaxseed	60	10.80	--	---	--	---	--	---	10.80
Rye	70	12.60	20	4.20	--	---	--	---	16.80
Corn	90	16.20	40	8.40	40	4.40	10	2.20	31.20
Sunflowers	60	10.80	35	7.35	20	2.20	10	2.20	22.55
Peas	--	---	35	7.35	30	3.30	15	3.30	13.95
Lentils	--	---	35	7.35	30	3.30	15	3.30	13.95
Buckwheat	55	9.90	35	7.35	30	3.30	--	---	13.95

Note: Fertilizer rates as recommended by the Department of Agriculture under normal conditions. The nitrogen price used in the above assumptions is an average of the following sources: anhydrous, liquid and granular fertilizers.

3) Chemicals

Per Hectare

Crop	Pre-Emergence Herbicides $/Ha	Post-Emergence Broadleaf Herbicides $/Ha	Wild Oats Millet Herbicides $/Ha	Insecticides Fungicides $/Ha	Total Cost/Hectare $
Wheat	---	11.12	30.89	---	42.01
Barley[1]	---	6.18	30.89	---	37.07
Canola[2]	---	---	30.89	---	30.89
Flaxseed	---	11.12	30.89	---	42.01
Rye	---	6.18	---	---	6.18
Corn[3] [4]	---	8.65	45.71	---	54.36
Sunflowers	---	---	30.89	---	30.89
Peas	---	4.94	30.89	---	35.83
Lentils	---	14.83	30.89	---	45.72
Buckwheat	---	---	30.89	---	30.89

(1) For oats assume same applications, less chemicals for wild oat control -- reduce cost by $9.92 per hectare.

(2) Fungicide treatment $54.34. **Not included in the budget on pages 2 and 3.**

(3) Pre-emergence part band $29.64. **Not included in the budget on pages 2 and 3.**

(4) Corn borer treatment $24.25. **Not included in the budget on pages 2 and 3.**

Per Acre

Crop	Pre-Emergence Herbicides $/Ac	Post-Emergence Broadleaf Herbicides $/Ac	Wild Oats Millet Herbicides $/Ac	Insecticides Fungicides $/Ac	Total Cost/Acre $
Wheat	---	4.50	12.50	---	17.00
Barley[1]	---	2.50	12.50	---	15.00
Canola[2]	---	---	12.50	---	12.50
Flaxseed	---	4.50	12.50	---	17.00
Rye	---	2.50	---	---	2.50
Corn[3] [4]	---	3.50	18.50	---	22.00
Sunflowers	---	---	12.50	---	12.50
Peas	---	2.00	12.50	---	14.50
Lentils	---	6.00	12.50	---	18.50
Buckwheat	---	---	12.50	---	12.50

(1) For oats assume same applications less chemicals for wild oat control -- reduce cost by $4.50 per acre.

(2) Fungicide treatment $22.00. **Not included in the budget on pages 4 and 5.**

(3) Pre-emergence part band $12.00. **Not included in the budget on pages 4 and 5.**

(4) Corn borer treatment $11.00. **Not included in the budget on pages 4 and 5.**

Oats cannot be grown in a field where avadex was applied in the previous year. Herbicides cannot be used in oats to control wild oats.

4) Fuel Costs:

Includes fuel used for field work, and trucking inputs in and products out.

5) Machinery & Operating Costs:

Includes costs for maintenance, repairs, licences and insurance.

6) Crop Insurance: (1991 rates) (1992 rates were not available at printing time)

Risk Area #6 at the average coverage dollar rate on a "B" soil zone plus hail spot loss and additional hail insurance at $100/acre coverage for wheat, barley, canola, flax and rye.

Risk Area #11 at the high coverage dollar rate on a "B" soil zone plus hail spot loss and additional insurance, at $100/acre coverage for sunflowers, peas, lentils, buckwheat, beans and Corn Area A.

7) Other Costs:

Includes overhead expenses - hydro, telephone, accounting, building and supplies insurance, etc.

8) Land Taxes

The average for the province was based on land tax assessment and mill rates of a sample of municipalities growing crops less provincial tax rebate. Budget assumes $12.36/ha ($5.00/acre) except for corn and peas which are normally grown on higher productive land where land taxes are estimated at $16.06/ha ($6.50/acre).

9) Drying Costs:

Budget allocates costs only for corn and sunflowers. However, drying costs may be incurred in some years for other crops.

10) Interest On Operating

Interest charges on operating costs are calculated at 10% for six months.

11) Land Investment Cost:

Land values are based on the three-year average land sale values in Manitoba; except for corn and peas where the average land sale values were those reported in crop district #8. Assumed 8% return on land investment.

12) Depreciation:

Assumed 10% depreciation, no salvage value.

13) Investment Cost:

8% opportunity cost on the machinery investment per hectare or acre by crop.

Per Hectare

Crop	Land Investment Per Ha ($)	Land Investment Cost ($)	Machinery Investment Per Ha ($)	Machinery Depreciation Cost ($)	Machinery Investment Cost ($)
Wheat	803.00*	64.25	296.52	29.65	23.72
Barley	803.00*	64.25	296.52	29.65	23.72
Canola	803.00*	64.25	296.52	29.65	23.72
Flaxseed	803.00*	64.25	296.52	29.65	23.72
Rye	803.00*	64.25	296.52	29.65	23.72
Corn	1,295.00**	103.59	370.65	37.07	29.65
Sunflowers	803.00*	64.25	321.23	32.12	25.70
Peas	1,295.00**	103.59	308.88	30.89	24.71
Lentils	803.00*	64.25	308.88	30.89	24.71
Buckwheat	803.00*	64.25	296.52	29.65	23.72

Per Acre

Crop	Land Investment Per Acre ($)	Land Investment Cost ($)	Machinery Investment Per Acre ($)	Machinery Depreciation Cost ($)	Machinery Investment Cost ($)
Wheat	325.00*	26.00	120.00	12.00	9.60
Barley	325.00*	26.00	120.00	12.00	9.60
Canola	325.00*	26.00	120.00	12.00	9.60
Flaxseed	325.00*	26.00	120.00	12.00	9.60
Rye	325.00*	26.00	120.00	12.00	9.60
Corn	524.00**	41.92	150.00	15.00	12.00
Sunflowers	325.00*	26.00	130.00	13.00	10.40
Peas	524.00**	41.92	125.00	12.50	10.00
Lentils	325.00*	26.00	125.00	12.50	10.00
Buckwheat	325.00*	26.00	120.00	12.00	9.60

* Based on the three years average land value for the province.

** Based on the three years average land value for crop district 8.

13) Storage:

Assumed a 5% depreciation cost and 8% investment cost.

Farm storage requirements were assumed to be 30 bushels/acre costing $1/bushel for 75% of the storage and $1.25/bushel for 25% aerated storage.

Storage requirements for corn were calculated at 60 bushels/acre.

Example - Wheat

Depreciation:	$\frac{\$30 - \$3}{20 \text{ years}}$		=	$1.35	
Investment:	$\frac{\$30 + \$3}{2}$ x 8%		=	$1.32	
		sub-total		$2.67 x 75% =	$2.00

Aeration Bins (1/4)

Depreciation:	$\frac{\$37.50 - \$3.75}{20 \text{ years}}$		=	$1.69	
Investment:	$\frac{\$37.50 + \$3.75}{2}$	x 8%	=	$1.65	
		sub-total		$3.34 x 25% =	$0.83
				TOTAL	**$2.83**

14) Labour

It depends upon the individual farm size, type of enterprises, and degree of mechanization. Assumed 3.7 hours per ha (1.5 hours per acre) at $8.00 per hour.

Cost - $29.65 per hectare ($12.00/acre).

No management cost has been assessed in these budgets.

Prepared By: Keith Kyle
Farm Management Specialist

FOR FURTHER INFORMATION SEE YOUR LOCAL MANITOBA AGRICULTURE OFFICE